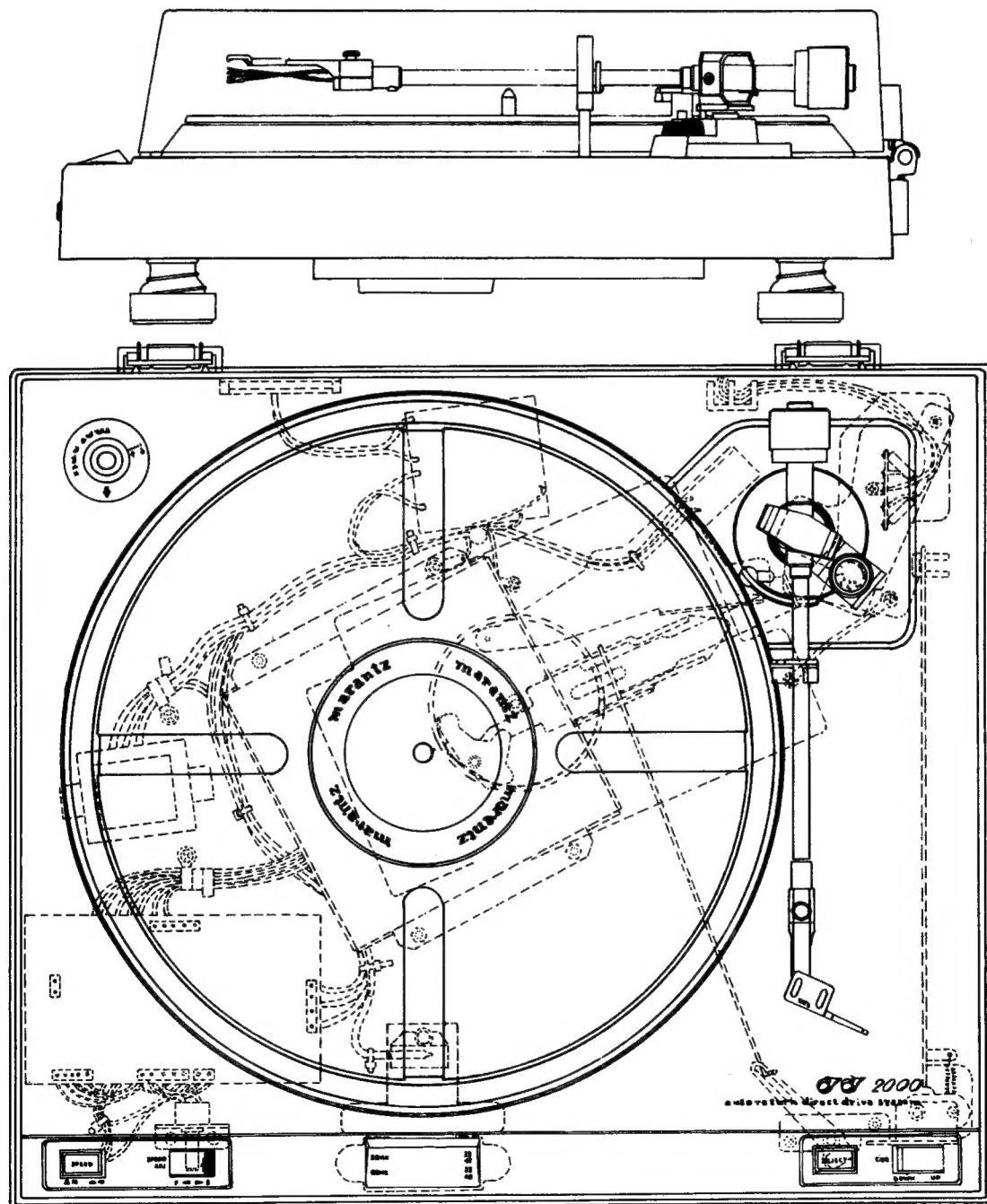


marantz®

TT-2000

service
manual



TT-2000

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ Company has created the ultimate in stereo sound. Only original MARANTZ parts can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ stereo are generally available within 72 hours throughout the nation via a toll-free line to our National Parts Depot in California. The sales professionals who take your call immediately refer to their own desk top computer terminal and can quickly determine the availability and price information you require. If, for some reason, your order should exceed our available stock, we usually can instantly provide an alternate replacement part or current delivery information. When the order is placed and confirmed, the computer simultaneously generates "hard copy" orders at the distribution center. As hard copies come directly from the computer to the national parts depot, your requested stock is assembled and prepared for shipment and placed on the first available carrier for delivery to you.

ORDERING PARTS

Phone orders will eliminate mail delays, and we encourage the use of this method. If you order by mail, use MARANTZ parts order forms which are available from our National Parts Depot located at the following address:

SUPERSCOPE NATIONAL PARTS DEPARTMENT
20525 Nordhoff Street
Chatsworth, California 91311
Phone: 1-800-423-5108
1-213-998-9333

The following information must be supplied to eliminate delays in processing your order:

1. Complete address.
2. Complete part numbers.
3. Complete description of parts.
4. Model number for which part is required (indicate MARANTZ).
5. Account number (for account customers only).

Direct consumers will be provided with the current retail price quotation on available parts in order to advise them of the cost of the parts and shipping.

OVERSEAS PARTS ORDERING

Parts may also be ordered from the following overseas addresses:

CANADA

Superscope Canada, Ltd.
3710 Nashua Drive
Mississauga
Ontario, Canada L4V1M5

AUSTRALIA

Superscope (Australasia) Pty., Ltd.
32 Cross Street (P.O. Box 604)
Brookvale 2100 N.S.W.
Australia

JAPAN

Marantz Japan, Inc.
3622 Kamitsuruma
Sagamihara Shi
Kanagawa, Japan

EUROPE

Superscope Europe, S.A.
Avenue Leopold III, 2
7120 Peronne- Lez-Binche
Belgium

Marantz France
Rue Louis Armand 9
92600 Asnieres
Hauts-de-Seine
France

Marantz Audio U.K. Ltd
London Road, 203
Staines
Middlesex
England

Superscope GmbH
Max-Planck-Strasse 22
D-6072 Dreieich 1
West Germany

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please contact the nearest facility for the necessary assistance.

TT-2000
SERVICE MANUAL CONTENTS

SUBJECT	PAGE
MARANTZ DESIGN AND SERVICE	1
CARTRIDGE WIRE COLOR CODE	2
STYLUS OVERHANG ADJUSTMENT	2
STYLUS TRACKING FORCE ADJUSTMENT	2
PITCH VERIFICATION	2
AUTO-RETURN ADJUSTMENT	2
MOTOR REPLACEMENT PROCEDURE	2
DRIVING WAVEFORM ADJUSTMENT	3
CIRCUIT WAVEFORM ANALYSIS	3
CIRCUIT VOLTAGE CHARTS	3
TT-2000 TROUBLE SHOOTING CHART	4
MAJOR COMPONENTS VIEW	5
120 VAC POWER SUPPLY SCHEMATIC	5
220 VAC POWER SUPPLY SCHEMATIC	5
CIRCUIT BOARD LAY-OUT VIEWS	6
ELECTRICAL SCHEMATIC (inserted)	7
TT-2000 MECHANICAL ASSEMBLY (inserted)	8
PARTS LIST	9-10
TT-2000 TECHNICAL SPECIFICATIONS	11
PACKAGING ASSEMBLY	11

SECTION 2. ALIGNMENT-ADJUSTMENTS

This service manual was prepared for qualified technicians familiar with Turntable maintenance and alignment procedure. Review complete adjustment sections before proceeding.

Cartridge Wire Color Code

Before installing a cartridge to the headshell, the wires should be connected to the cartridge. The cartridge or its technical sheet will identify the connection pins. It may be necessary to slightly compress the terminal clips on the headshell wires with your fingers to firm the contact area to the pins. Below is the headshell color-description.

Headshell Wires:

Right Channel Hot	Red
Right Channel Ground	Green
Left Channel Hot	White
Left Channel Ground	Blue

After wire connections are made, install cartridge mounting screws, provided with the cartridge, through the mounting slots and tighten firmly enough to hold the cartridge in place. Final adjustments are made after the overhang dimension is adjusted.

A. Stylus overhang adjustment

A 45 RPM adaptor is supplied with the TT2000 turntable that will be used for adjusting the overhang dimension. An arrow is marked on the 45 RPM ADAPTOR, and a gradient scale from 11 through 18.

1. Place the adaptor on the spindle with the arrow pointing towards the rear of the turntable. Gradient scale will be in the lower half quadrant when viewed from the front.
2. Remove stylus protective cover and balance the tone arm. Place the tone arm to the gradient scale and set stylus contact to gradient 17 mm on the 45 RPM ADAPTOR. Set the cartridge screws after checking that the cartridge is parallel to the sides of the headshell.

B. Stylus tracking force adjustment

1. Remove stylus protective cover. Adjust the counterweight until tone arm is capable of being suspended in midair without movement.
2. Set the counterweight dial to zero.
3. Rotate the counterweight towards the pivot point to the manufacturers specified cartridge tracking force.
4. Adjust the anti-skate control to the same force as the stylus tracking force.

C. Pitch—verification

1. Verify that the platter pitch control can be adjusted nominally from $\pm 3.5\%$ in both 45 and 33.3 RPM Modes.

2. Monitor that pitch control stabilizes Dot Patterns on the Platter. If adjustment is necessary, proceed to trouble shooting chart pitch adjustments.

D. Auto-return adjustment

If the Tone Arm returns before the end of the record program or delays to lift at end of record program, the sending arm can be adjusted as follows. REFER TO FIGURE (1)

1. To slightly delay tone arm return, adjust the fine adjustment screw clockwise.
2. To slightly advance tone arm return, adjust the fine adjustment screw counter clockwise.
3. When larger deviations are necessary, return fine adjustment screw to the middle of its travel.
4. Loosen the sending arm securing screws and adjust the tolerance between the actuating arm and sending-arm assy to 7 mm (.276in.). FIGURE (1)
5. Fine adjust tone arm return by repeating steps one or two, where applicable.

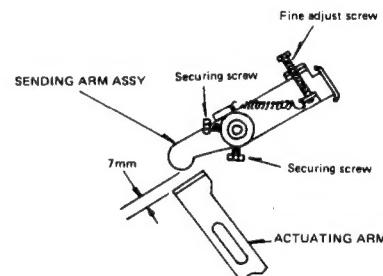


FIGURE (1)

SECTION 3. MOTOR REPLACEMENT PROCEDURE

1. Remove lead wires connected to pins 4,7-15
2. Remove the motor retaining screws on top of the turntable unit.
3. Remove the motor grounding wire.
4. Guide motor out of the unit

Reverse procedure for motor installation (Refer to FIGURE 2 for adjustment)

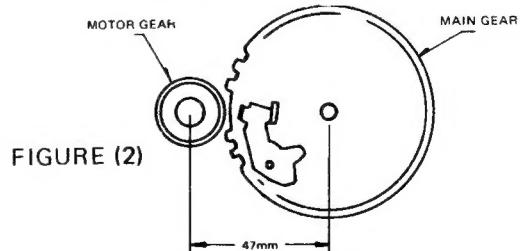
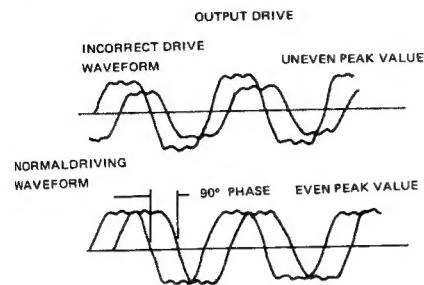


FIGURE (2)

1. Adjust Motor Pulley Distance from main gear (center to center) to 47 mm (1.850 in)
2. Adjust Motor gear to the center of main gear notch. (FIGURE 2)

Driving Waveform Adjustment

Adjusting resistors VR3, VR4, VR5 establishes IC2 operational offset and determines the hall element unbalanced output voltage. Below is a typical driving waveform output appearing at X6-B and X7-B.

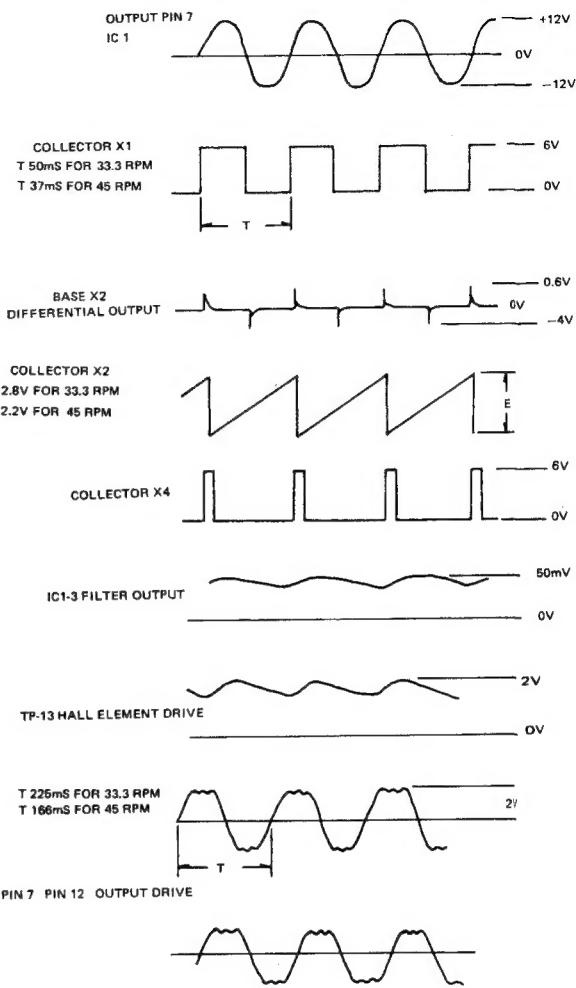


1. Use a dual beam scope with probes connected to X6-Base and X7-Base.
2. Superimpose signals from both channels on the scope.
3. Determine peak values and phase shift.
 - a. If peak values are uneven, adjust VR3.
 - b. If phase is not 90° adjust VR4, VR5.

NOTE: Repeat several times as one adjustment will affect the other.

4. Connect a wow and flutter meter and fine adjust VR3, VR4, VR5 for minimum wow and flutter starting with VR3.

NOTE: Turntable must be level for correct wow and flutter measurements.



INTEGRATED CIRCUITS

PIN NUMBER	IC1	IC2
1	0.8V	0V
2	0.2V	0.15V
3	0.2V	0.15V
4	-12.0V	-12.0V
5	0V	0.15V
6	0V	0.15V
7	0V	0.2V
8	+12.0V	+12.0V

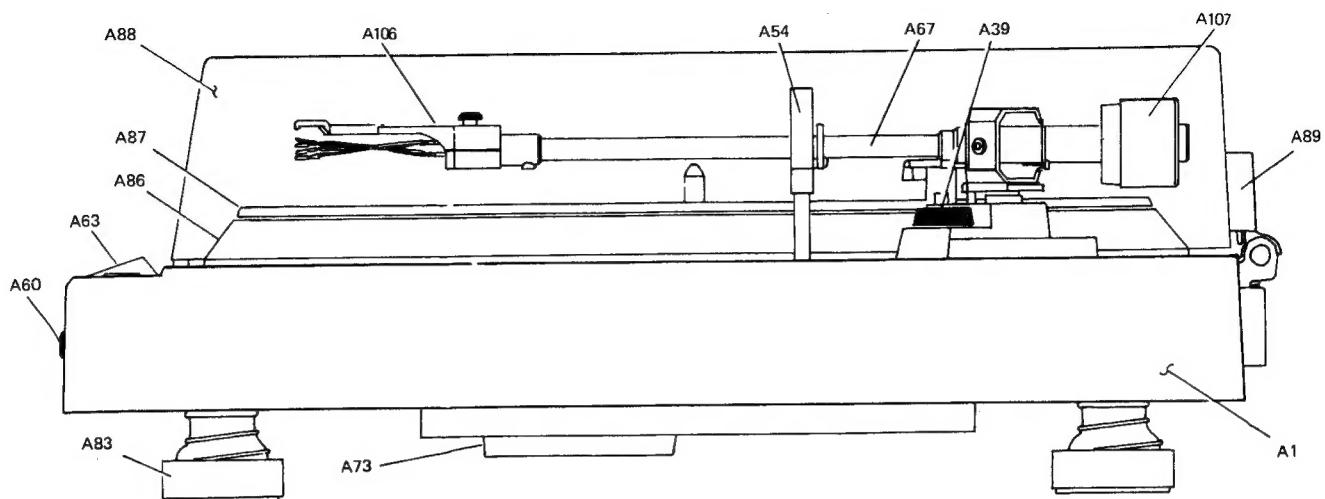
TRANSISTORS

COMPONENT	EMMITTER	BASE	COLLECTOR
X1	0V	0.9V	3.5V
X2	0V	0V	1.5V
X3	2.1V	1.4V	6.2V
X4	6.4V	6.8V	0.25V
X5	2.0V	2.5V	6.4V
X6 X7	0V	0.3V	+12.0V
X8 X9	0V	0.3V	-12.0V

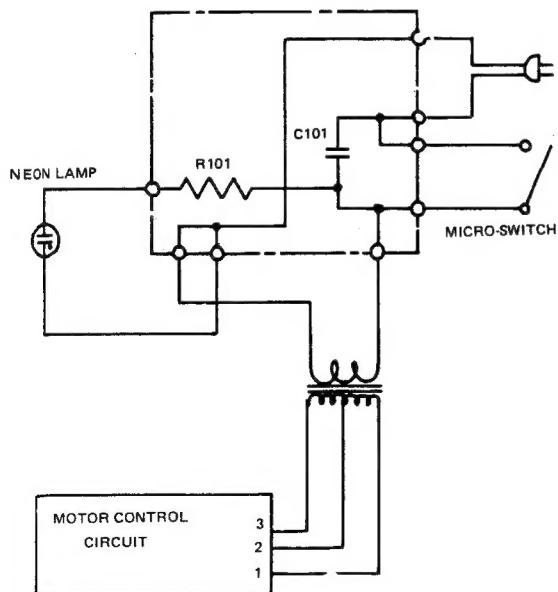
TT-2000 TROUBLE SHOOTING CHART

PROBLEM	SUSPECTED AREA	TASK
Stylus Remains in One Groove	1. Stylus Tracking Force 2. Tone Arm Lead Wires Binding 3. Dirty Clutch Plate-Guide	1. Adjust Stylus Tracking Force 2. Rearrange Lead wires 3. Clean Parts Thoroughly
Loud Sound Impact Heard On Return of Tone Arm	1. Main Gear Teeth	1. Check Gap Between Main Gear and Motor Gear 2. Check Clutch Plate, Guide, Actuating Arm and Base for Dirt or Binding
No Tone Arm Signal Output	1. Cartridge/Stylus 2. Leadwires 3. 5-Pin Terminal Strip 4. Cartridge Wiring	1. Replace 2. Check for Short or Open Wiring 3. Verify Wire Connections 4. Check for Broken Wires
One Channel Distorted	1. Stylus Tracking Force 2. Cartridge Position Incorrect 3. Anti-Skating Force	1. Readjust Tracking Force 2. Mount Cartridge Parallel to Sides of Headshell 3. Readjust Anti-skating Force
No Motor Turn On	1. Fuses 2. Power Supply Wiring	1. Check for Short Circuits and Replace Fuses 2. Check for Visible Wire Damage
Intermittent Motor Start	1. Intermittent Fuse-wiring 2. Intermittent Drive Transistors	1. Replace Fuse-Repair Wire 2a. Verify waveform @TP-13. 2b. Verify waveform @X6,X8 base. 2c. Verify waveform @X7,X9 base. 2d. Replace defective transistor if no signal @ TP-7,12.
Motor Speed Inaccurate	1. Speed Range Switch	1. Clean or Replace Switch
Pitch Will Not Hold	1. Pitch Control	1. Clean Pitch Potentiometer
Motor Speed Too Fast or Slow	1. VR1, VR2	1. Center Pitch Control and Adjust VR1-33RPM, VR2-45RPM
Motor Speed Too Fast or Slow	1. Incorrect Signal Form In Circuit	1. Verify Correct Waveforms Throughout Circuit after confirming correct DC Voltages
Tone Arm Returns to Arm Rest, Platter Remains on	1. Micro-Switch Adjustment	1. Adjust Gap Between Microswitch and Sending Arm 0.8-1.2 mm
Reject Button Depressed But Tone Arm Does Not Return	1. Actuating Arm 2. Main Gear Drive	1. Check Reject Button, Spring, Lever Mechanism 2. Check Position of Motor Gear For Correct Position in Notch of Main Gear 3. Check Gear Teeth for Wear

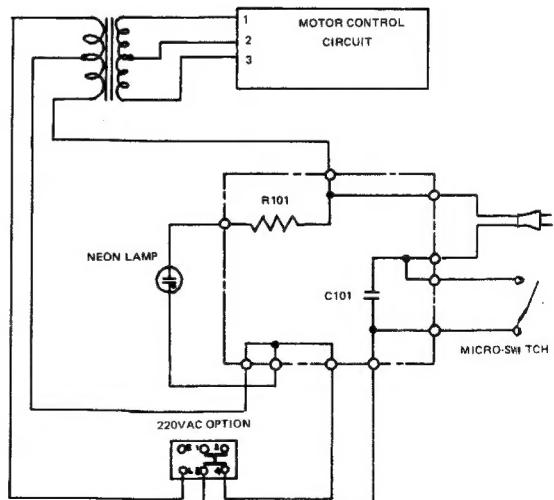
MAJOR COMPONENTS VIEW



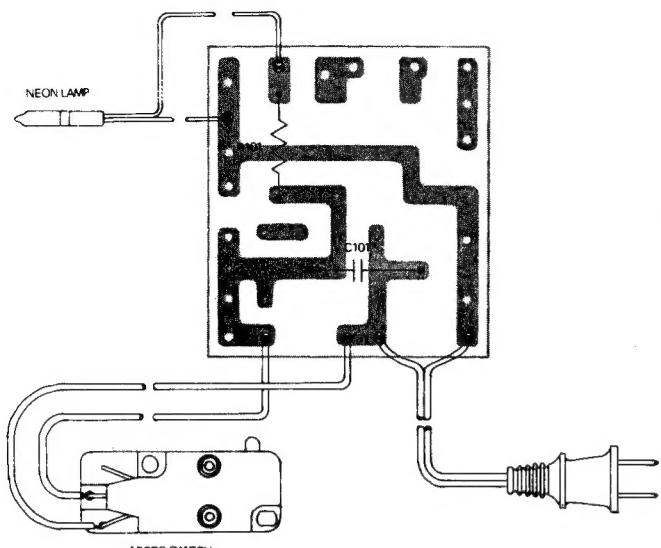
120VAC POWER SUPPLY SCHEMATIC



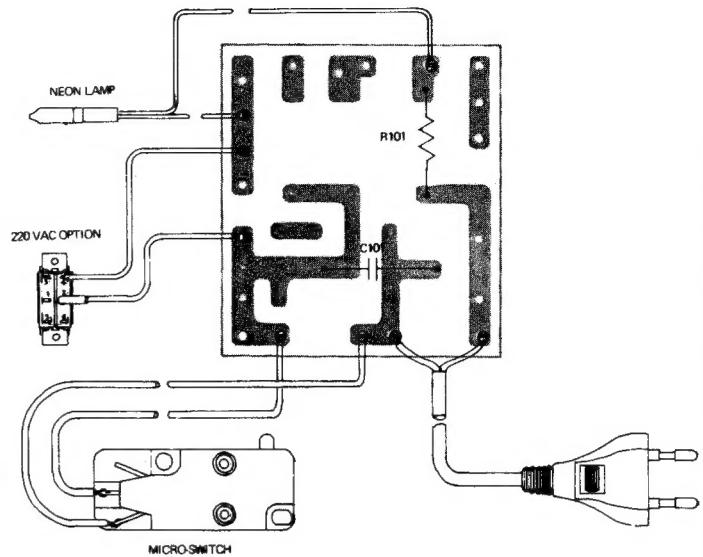
220VAC POWER SUPPLY SCHEMATIC



120VAC CIRCUIT BOARD

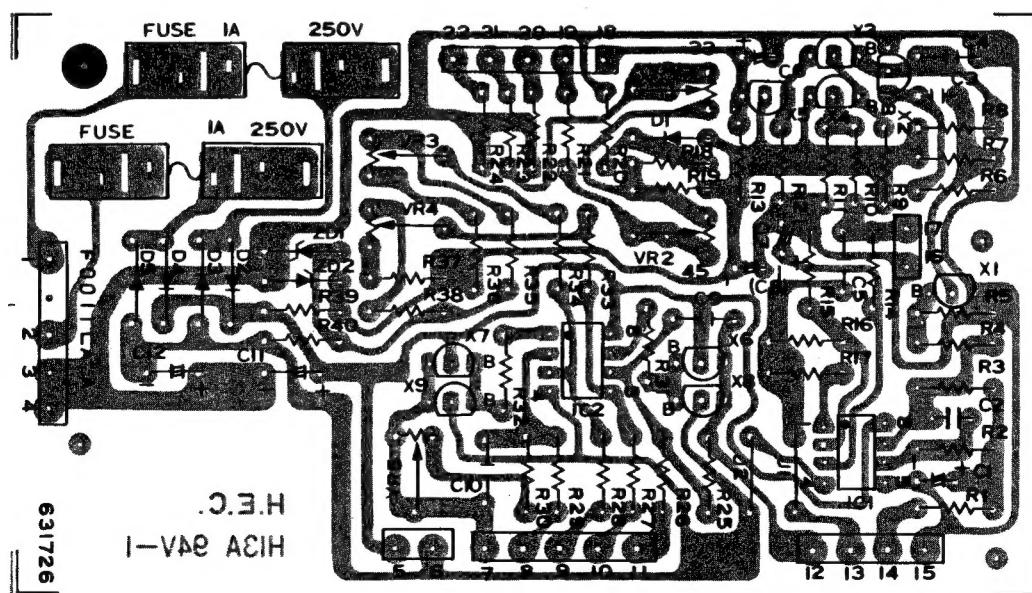


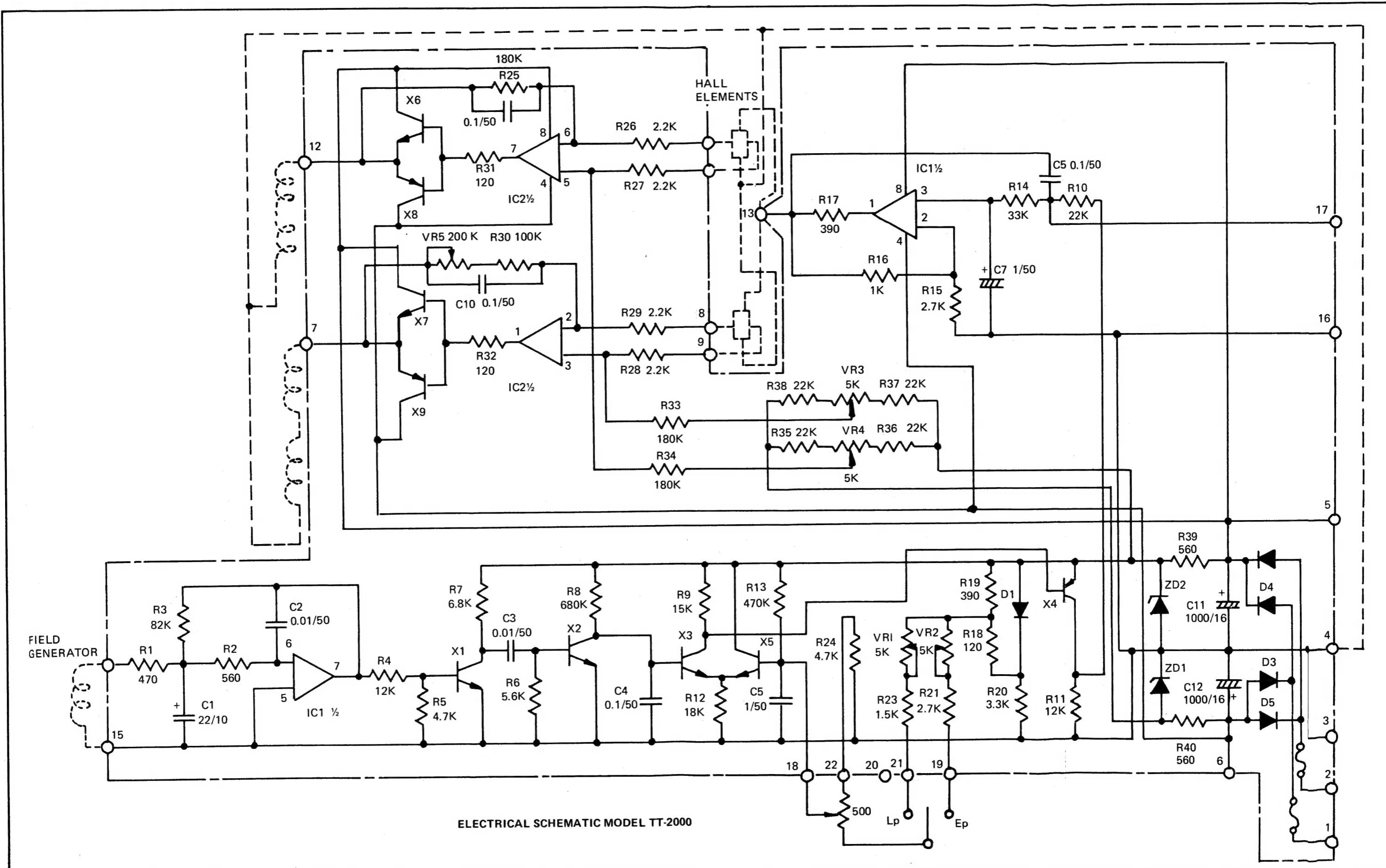
220VAC CIRCUIT BOARD

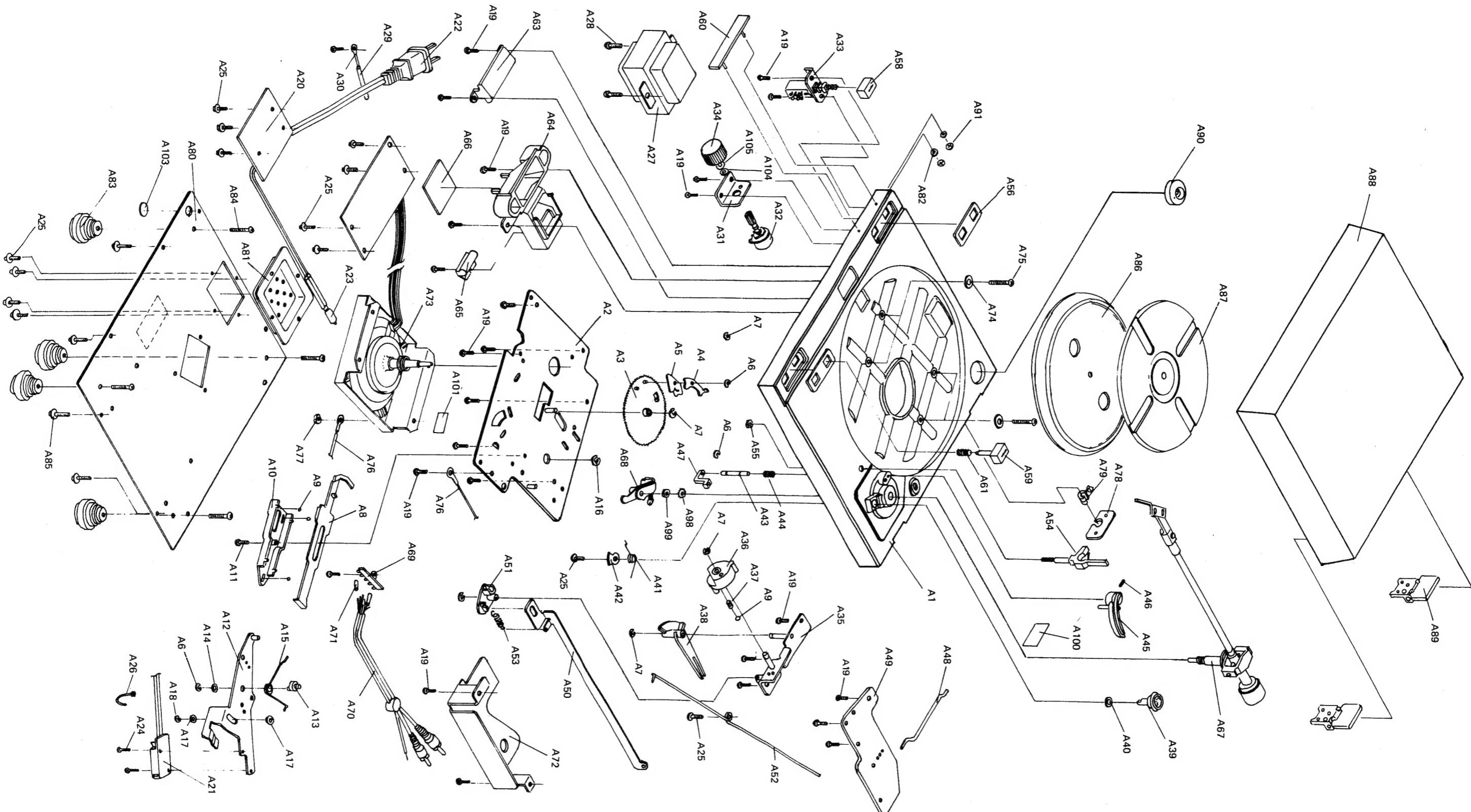


AC Power cord for Taiwan furnished
without connector

MOTOR CONTROL CIRCUIT BOARD







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REF DESIG	QUANTITY					PART NUMBER	DESCRIPTION	REF DESIG	QUANTITY					PART NUMBER	DESCRIPTION	
	U	C	E	T	A				U	C	E	T	A			
							MECHANICAL PARTS									
A1	1	1	1	1	1	847306	CABINET CASE	A69	1	1	1	1	1	890979	TERMINAL STRIP, 5-PIN	
A2	1	1	1	1	1	861641-2	SUB-CHASSIS ASSY	A70	1	1	1	1	1	871474-2	CABLE ASSY, PHONO OUT	
A3	1	1	1	1	1	895248	R-GEAR ASSY	A71	2	2	2	2	2	INS TUB002	TUBE, INSULATION	
A4	1	1	1	1	1	894901	CLUTCH PLATE	A72	1	1	1	1	1	898752	PLATE, SHIELD	
A5	1	1	1	1	1	894902	CLUTCH GUIDE	A73	1	1	1	1	1	DDM-511F-65	MOTOR ASSY	
A6	3	3	3	3	3	ER000000030	E-RING, 3MM	A74	4	4	4	4	4	WSHR SPCC-1	WASHER, SPCC-ZBC	
A7	5	5	5	5	5	ER000000032	E-RING, 3.2MM	A75	4	4	4	4	4	SCWRH 4 x 20M	SCREW, RD HD 4X20	
A8	1	1	1	1	1	870933-1	ACTUATING ARM	A76	2	2	2	2	2	894383-1	GROUND WIRE ASSY	
A9	4	4	4	4	4	39688MM000	BALL BEARING 3.9688MM	A77	1	1	1	1	1	FLN4	NUT, LOCKING 4MM	
A10	1	1	1	1	1	870932-1	ACTUATING BASE	A78	1	1	1	1	1	892624-3	PLATE, AC-CORD	
A11	1	1	1	1	1	SCW0003 x 12	SCREW, 3X12	A79	1	1	1	1	1	893037-3	PLATE, AC-CORD	
A12	1	1	1	1	1	896487	FUNCTION PLATE ASSY	A79	1	1	1	1	1	891568-0	GROMMET, AC-CORD	
A13	1	1	1	1	1	895073	ECCENTRIC PIN	A79	1	1	1	1	1	891568-3	GROMMET, AC-CORD	
A14	1	1	1	1	1	WSHR 5 x 10	WASHER, 5X10X0.2	A80	1	1	1	1	1	872212	GROMMET, AC-CORD	
A15	1	1	1	1	1	895251	SPRING, COIL	A81	1	1	1	1	1	898530	LID, BOTTOM	
A16	1	1	1	1	1	WSHR 6MM SPG	WASHER, 6MM-SPRING	A82	2	2	2	2	2	893215	COVER, TRANSFORMER	
A17	2	2	2	2	2	WSHR 32 x 10	WASHER, 3.2X10X0.5	A83	4	4	4	4	4	895773-2	BUSHING, RUBBER	
A18	1	1	1	1	1		E-RING, 2MM	A84	4	4	4	4	4	SCWRD 4 x 14M	FOOT, RUBBER ABSORB	
A19	33	33	33	33	33	SCW 3 x 8 TAPO	SCREW, TAP 3X8	A85	11	11	11	11	11	SCWTP 4 x 14M	SCREW, RD HD 4X14M	
A20	1	1	1	1	1	871536	BOARD ASSY, POWER SUPPLY	A86	1	1	1	1	1	620060	SCREW, TAP, 4X14M	
A20		1				871536-1	BOARD ASSY, POWER SUPPLY	A87	1					702283	PLANER, TURNTABLE	
A21	1	1				891340-1	MICRO-SWITCH	A87	1					872283	MAT, RUBBER	
A21		1	1	1	1	895430-1	MICRO-SWITCH	A87	1					872283-1	MAT, RUBBER	
A22	1	1				892435-1	AC POWER CORD	A88	1	1	1	1	1	851888-1	DUSTCOVER	
A22		1				896824	AC POWER CORD	A89	2	2	2	2	2	898532	HINGE ASSY	
A22		1				870913	AC POWER CORD	A90	1	1	1	1	1	898340	ADAPTOR, 45 RPM	
A22		1				897336	AC POWER CORD	A91	2	2	2	2	2	CS-3	WASHER, CLIP RETAINER	
A23	1	1				894001-3	NEON LAMP	A92						896544-1	SWITCH, VOLTAGE CHANGE OVER	
A23		1	1	1	1	894001-1	NEON LAMP	A93						702233-3	TUBE, INSULATION	
A24	2	2	2	2	2	SCWRH 26 x 14	SCREW, RD HD 2.6X14M	A94						891799	SCREW, RD HD	
A25	13	13	13	13	13	SCW 3 x 8 TAPM	SCREW, TAP 3X8M	A95						893327	PLATE, VOLT INDICATOR	
A26	7	7	7	7	7	WRCLP 00001	WIRE FASTENER	A96						894756	INSULATION SHEET	
A27	1					872261	TRANSFORMER, POWER	A97						702233	COVER, SENDING ARM	
A27		1				872262	TRANSFORMER, POWER	A98	1	1	1	1	1	STW10	WASHER, STAR	
A27		1				772264	TRANSFORMER, POWER	A99	1	1	1	1	1	M10	NUT, NO10	
A27		1				872263	TRANSFORMER, POWER	A100	1					898341	LABEL, I.D.	
A28	2	2	2	2	2	SCW RH 4 x 10M	SCREW, RD HD 4X10M	A100	1					898341-1	LABEL, I.D.	
A29	3	3	3	3	3	890755	LUG, TERMINAL	A100	1					898341-2	LABEL, I.D.	
A30	4	4	4	4	4	INSTUB 001	TUBING, INSULATION	A100	1					898341-3	LABEL, I.D.	
A31	1	1	1	1	1	898325	BRACKET, VOLUME	A100	1					898341-4	LABEL, I.D.	
A32	1	1	1	1	1	703062	POTENTIOMETER, 500 ohm	A101	1					894783-2	LABEL, FUSE	
A33	1	1	1	1	1	872295	SWITCH, PUSH	A101	1					895019	LABEL, FUSE	
A34	1	1	1	1	1	898326	KNOB, SPEED CONTROL	A102	1					893389	LABEL, CAUTION	
A35	1	1	1	1	1	898328	BRACKET, CUE ASSY	A102	1					895020	LABEL, CAUTION	
A36	1	1	1	1	1	898329	KNOB, CUEING	A102	1					893389	LABEL, CAUTION	
A37	1	1	1	1	1	E-287680	SPRING, CAM	A103	1	1	1	1	1	W98753	PAD, MASKING	
A38	1	1	1	1	1	897818	LEVER REJECT	A104	1	1	1	1	1	WSHR-SPCOO	WASHER	
A39	1	1	1	1	1	898332	KNOB, ANTI-SKATE	A105	1	1	1	1	1	M7	NUT, NO 7M	
A40	1	1	1	1	1	897554	WASHER, SPRING	A106	1	1	1	1	1	HD SHLL 0001	HEAD SHELL	
A41	1	1	1	1	1	897445	SPRING, ANTI-SKATE	A107	1	1	1	1	1	CGWT 000060	COUNTER WEIGHT	
A42	1	1	1	1	1	897547	CAM, ANTI-SKATE						631726			
A43	1	1	1	1	1	898525	SHAFT, ELEVATION							ELECTRICAL PARTS		
A44	1	1	1	1	1	E832780	SPRING, ELEVATION							MOTOR CONTROL BOARD		
A45	1	1	1	1	1	897816	PLATE, ELEVATION							BOARD ASSY, MOTOR CONTROL		
A46	1	1	1	1	1	SCW FT 26 x 4M	SCREW, FT-2.6X4M							SEMI-CONDUCTORS		
A47	1	1	1	1	1	895676	ARM, CUEING	IC1,IC2	2	2	2	2	2	NJM4558D	OP AMP MPC 4558C	
A48	1	1	1	1	1	898526	LEVER, CUEING	X1-3,5	4	4	4	4	4	2SC945	TRANSISTOR, 2SC945, L	
A49	1	1	1	1	1	898751	BASE, CUEING	X4	1	1	1	1	1	2SA733	TRANSISTOR, 2SA733, P	
A50	1	1	1	1	1	898334	ARM, CUEING	X6,X7	2	2	2	2	2	2SD468	TRANSISTOR, 2SD468B, C	
A51	1	1	1	1	1	898335	CAM, CUEING	X8,X9	2	2	2	2	2	2SB562	TRANSISTOR, 2SB562	
A52	1	1	1	1	1	898527	SPRING, REJECT	ZD1,ZD2	2	2	2	2	2	WZ061	DIODE, ZENER 6.4V-500MW	
A53	1	1	1	1	1	898533	SPRING, COIL	Z1	1	1	1	1	1	IS1210	DIODE, IS1210	
A54	1	1	1	1	1	897822	REST, TONE ARM	Z2-5	4	4	4	4	4	W03B	DIODE, 100V-1A	
A55	1	1	1	1	1	NUT FG 0003M	NUT, FLANGE 3MM							CAPACITORS		
A56	1	1	1	1	1	898336	NAME PLATE	C2-3	2	2	2	2	2	SC2-01M2-50V	POLY FILM 0.01MF-50WV	
A57	1	1	1	1	1	898337	NAME PLATE, CUEING	C4,5,9,10	4	4	4	4	4	SC2-01M1-50V	POLY FILM 0.1MF-50WV	
A58	1	1	1	1	1	898528	BUTTON, ASSY-PITCH	C1	1	1	1	1	1	SC1-22MO-25V	ELECTRO, 22MF-25WV	
A59	1	1	1	1	1	898528-1	BUTTON ASSY-REJECT	C6,7	1	1	1	1	1	SC1-01MO-50V	ELECTRO, 1MF-50WV	
A60	1	1	1	1	1	896638	LOGO	C11,12	2	2	2	2	2	SC1-1000-16V	ELECTRO, 1000MF-16WV	
A61	1	1	1	1	1	892084-1	SPRING, COIL									
A62	1	1	1	1	1	897843	SHAFT, REJ. BUTTON									
A63	1	1	1	1	1	898339	WINDOW, STROBE									
A64	1	1	1	1	1	872211	HOUSING, MIRROR									
A65	1	1	1	1	1	897657-1	LAMP HOLDER									
A66	1	1	1	1	1	898529	MIRROR									
A67	1	1	1	1	1	851832	TONE ARM ASSY									
A68	1	1	1	1	1	893583-3	SENDING ARM ASSY									

U UNITED STATES
C CANADA
E EUROPE
T TAIWAN
A AUSTRALIA

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TT-2000

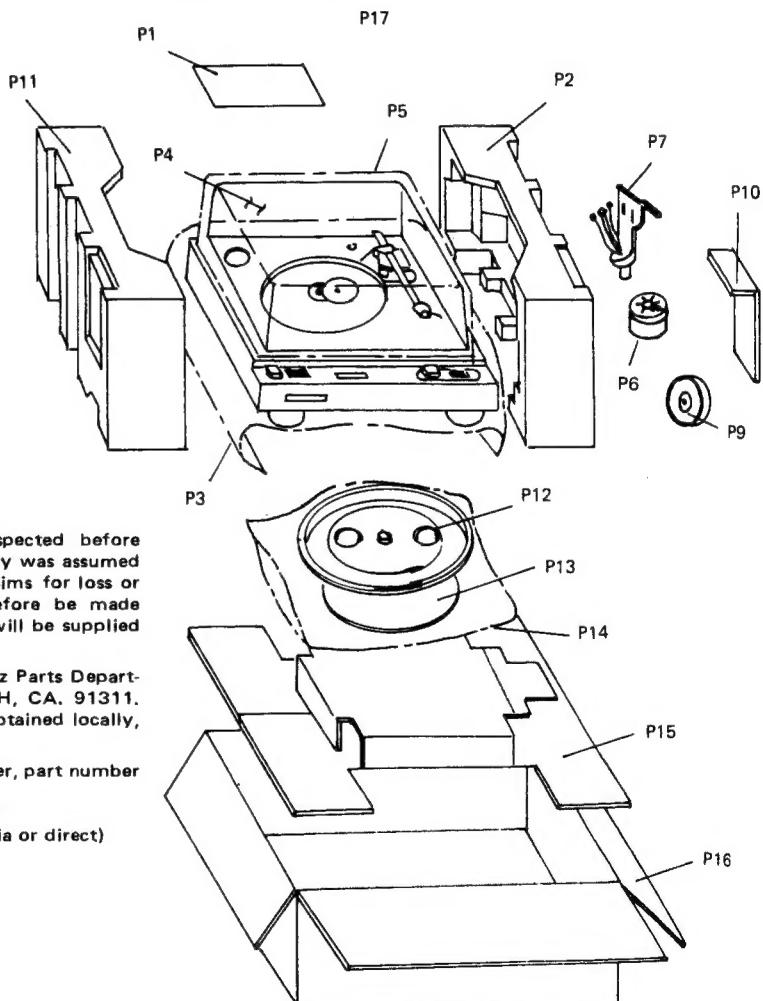
REF DESIG	QUANTITY					PART NUMBER	DESCRIPTION	REF DESIG	QUANTITY					PART NUMBER	DESCRIPTION	
	U	C	E	T	A				U	C	E	T	A			
							RESISTORS									ELECTRICAL PARTS
							RESISTORS ARE 1/4W-5% UNLESS OTHERWISE STATED									POWER SUPPLY BOARD
VR1-4	4	4	4	4	4	SR2-05K0-8	POTENTIOMETER, 5K ohm		1	1	1	1	1	871536	BOARD ASSY, POWER SUPPLY	
VR5	1	1	1	1	1	SR2-200K-8	POTENTIOMETER, 200 K ohm		1	1	1	1	1	392435-1	BOARD ASSY, POWER SUPPLY	
R1	1	1	1	1	1	SR1-0470-104	CARBON, 470 ohm							896824	CORD ASSY, AC POWER	
R2	1	1	1	1	1	SR1-0560-104	CARBON, 560 ohm							870913	CORD ASSY, AC POWER	
R3	1	1	1	1	1	SR1-82K0-104	CARBON, 825 K ohm		1	1	1	1	1	894001-3	CORD ASSY, AC POWER	
R4	1	1	1	1	1	SR1-12K0-104	CARBON, 12 K ohm		1	1	1	1	1	894001-1	NEON LAMP	
R5	1	1	1	1	1	SR1-47K1-104	CARBON, 4.7 K ohm		1	1	1	1	1	891340-1	NEON LAMP	
R6	1	1	1	1	1	SR1-56K1-104	CARBON, 5.6 K ohm							895430-1	MICRO SWITCH, AM47009	
R7	1	1	1	1	1	SR1-68K1-104	CARBON, 6.8 K ohm							896960	MICRO SWITCH, AM47008	
R8	1	1	1	1	1	SR1-680K-104	CARBON, 680 K ohm							C101	CAPACITOR, 0.047MF	
R9	1	1	1	1	1	SR1-15K0-104	CARBON, 15 K ohm							C101	CAPACITOR, 0.022MF	
R10	1	1	1	1	1	SR1-22K0-104	CARBON, 22 K ohm		1	1	1	1	1	895839-1	RESISTOR, 12 K ohm-2W	
R11	1	1	1	1	1	SR1-12K0-104	CARBON, 12 K ohm		2	2	2	2	2	704572	RESISTOR, 33 K ohm-2W	
R12	1	1	1	1	1	SR1-18K0-104	CARBON, 18 K ohm		6	6	6	6	6	703111	WRAPPING PIN	
R13	1	1	1	1	1	SR1-470K-104	CARBON, 470 K ohm								WRAPPING PIN	
R14	1	1	1	1	1	SR1-33K0-104	CARBON, 33 K ohm								PACKING MATERIALS	
R15	1	1	1	1	1	SR1-27K1-104	CARBON, 2.7 K ohm									
R16	1	1	1	1	1	SR1-01K0-104	CARBON, 1 K ohm		P1	1	1			851-947	MANUAL, INSTRUCTION	
R17	1	1	1	1	1	SR1-3900-104	CARBON, 390 ohm		P1	1	1	1	1	851-984	MANUAL, INSTRUCTION	
R18	1	1	1	1	1	SR1-1200-104	CARBON, 120 ohm		P2	1	1	1	1	851833	END PAD	
R19	1	1	1	1	1	SR1-3900-104	CARBON, 390 ohm		P3	1	1	1	1	1	POLSH0001	SHEET, POLY FOAM
R20	1	1	1	1	1	SR1-33K1-104	CARBON, 3.3 K ohm		P4	1	1	1	1	1	851888-1	DUST COVER
R21	1	1	1	1	1	SR1-27K1-104	CARBON, 2.7 K ohm		P5	1	1	1	1	1	891264-1	SHEET, POLYFOAM
R23	1	1	1	1	1	SR1-15K1-104	CARBON, 1.5 K ohm		P6	1	1	1	1	1	CGWT000060	COUNTER WEIGHT
R24	1	1	1	1	1	SR1-47K1-104	CARBON, 4.7 K ohm		P7	1	1	1	1	1	HDSHL001	HEADSHELL
R25	1	1	1	1	1	SR1-180K-104	CARBON, 180 K ohm		P9	1	1	1	1	1	898340	ADAPTOR, 45 RPM
R26-28	3	3	3	3	3	SR1-22K1-104	CARBON, 2.2 K ohm		P10	1	1	1	1	1	851834B	PARTSPAD
R30	1	1	1	1	1	SR1-100K-104	CARBON, 100 K ohm		P11	1	1	1	1	1	851833	END PAD
R31-32	2	2	2	2	2	SR1-1200-104	CARBON, 120 K ohm		P12	1	1	1	1	1	620060	PLATTER, TURNTABLE
R33-34	2	2	2	2	2	SR1-180K-104	CARBON, 180 K ohm		P13	1	1	1	1	1	872283-1	MAT, PLATTER
R35-38	4	4	4	4	4	SR1-22K0-104	CARBON, 22 K ohm		P14	1	1	1	1	1	POLBG00001	POLY BAG
R39-40	2	2	2	2	2	SR1-5600-104	CARBON, 560 ohm		P15	1	1	1	1	1	851834A	PAD, LOWER
							MISCELLANEOUS		P16	1	1	1	1	1	851834	CARTON
									P17	1	1	1	1	1	851834-1	CARTON
															PACKAGING SHEET	
	1	1	1	1	1	LN-1250	TERMINAL BASE									
	2	2	2	2	2	704842	FUSE HOLDER SN 5051									
	2	2	2	2	2	896925-1	FUSE, 1 A.250V									
	3	3	3	3	3	704841	TERMINAL ASSY, 5 PIN									
	1	1	1	1	1	704841-1	TERMINAL ASSY, 4 PIN									
	1	1	1	1	1	704841-3	TERMINAL ASSY, 2 PIN									

TT-2000
TECHNICAL SPECIFICATIONS
GENERAL

TYPE: Auto-return, direct drive system
FEATURES: Semi-automatic with strobe
POWER SOURCE: 120V-60Hz 5 Watts Max.
DIMENSIONS: 446(W) x 394(D) x 142(H) mm
PLATTER DIMENSIONS-WEIGHT: 320 mm-1.1KG
NET WEIGHT: 9KG Max.
MOTOR SPECIFICATIONS:
TYPE: Coreless, slotless, brushless
2 Phase 8-Pole Magnetic Field DC Servo
SPEED CONTROL RANGE: $\pm 3.5\%$

	WOW-FLUTTER (WRMS)	NOMINAL	LIMIT
	0.030%	0.080%	
RUMBLE (DIN B)	-72dB	-60dB	
TONE ARM:			
EFFECTIVE LENGTH:	216 \pm 2MM		
OVERHANG:	17MM		
OFF SET ANGLE:	23.5 °		
TRACKING FORCE RANGE:		1.5-5 GRAMS	
ADAPTABLE CARTRIDGE WEIGHT:		5-10 GRAMS	
ANTI-SKATING FORCE RANGE:		0-4 GRAMS (CONICAL-ELLIPTICAL)	

PACKING ASSEMBLY



NOTE:

1. This merchandise was thoroughly packed and inspected before leaving our factory. Responsibility for its safe delivery was assumed by the carrier upon acceptance of the shipment. Claims for loss or concealed damage, sustained in transit, must therefore be made upon the carrier. Forms required to file such claims will be supplied by the carrier.
2. Replacement parts may be ordered from the Marantz Parts Department, 20525 NORDHOFF STREET, CHATSWORTH, CA. 91311. ITEMS Such as screws and other hardware may be obtained locally, using the description provided.

When ordering replacement parts, specify model number, part number and description.

For telephone orders, dial: 1-800-423-5108 (toll free)
1-213-998-9333 (California or direct)
Ask for National Parts